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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,528

01/13/2006

Miniar Hemaissia

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EXAMINER

COUGHLAN, PETER D

ART UNIT

PAPER NUMBER

2129

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/564,528	<b>Applicant(s)</b> HEMAISSIA ET AL.	
	<b>Examiner</b> PETER COUGHLAN	<b>Art Unit</b> 2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## Detailed Action

1. Claims 1-10 are pending in this application.
2. Examiner's comment. The rambling design of claim 1 does not provide a clear explanation of what the invention accomplishes. The Examiner chose not to reject this claim under Prolix. (see MPEP 2173.05) An amended claim which clearly defines the invention without the long recitation might move the application forward.

### **35 USC § 101**

3. 35 U.S.C. 101 reads as follows:  
Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-10 are rejected under 35 U.S.C. 101 for preemption. Per the specification, the invention can be used for 'propaganda, advertising, marketing, politics, etc.' This sentence states known and unknown uses for the invention. The area of known and unknown uses is addressed in Gottschalk v. Benson, 409 U.S. 63, 71-72, 175 USPQ 673, 676 (1972). In Benson, the claim as for a method "Here the "process" claim is so abstract and sweeping as to cover both known and unknown uses of the BCD to pure-binary conversion. The end use may (1) vary from the operation of a train to

verification of drivers' licenses to researching the law books for precedents and (2) be performed through any existing machinery or future-devised machinery or without any apparatus." The specification states both known and unknown practical applications for the invention.

Claims which state preemption are not statutory.

#### ***Claim rejections – 35 USC §112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is no explanation of what constitutes a 'morphological filter.'

Under section 2164.01(a) of the MPEP 7 areas need to be addressed for a test of enablement.

(A) The breadth of the claims. The independent claims pertain to extracting

pertinent information. This does not aid the Examiner of what a morphological filter is.

(B) The nature of the invention. The nature of the invention can be used for 'propaganda, advertising, marketing, politics, etc. This does not give any indication of what a 'morphological filter' is.

(C) The state of the prior art. The claims and specification are within numerous realms. Therefore the application which are listed within the specification are too numerous to aid the Examiner in determining what is a 'morphological filter.'

(D) The level of one of ordinary skill. The phrase 'morphological filter' can have numerous possibilities. It could be any function, expert rule system or any AI design. There is no indication based on one of ordinary skill which is to be the design of a 'morphological filter.'

(E) The level of predictability in the art. There is no specific domain in which the invention can be employed, there exists no specific level of predictability in the art which could aid the Examiner.

(F) The amount of direction provided by the inventor. The term 'morphological filter' is mentioned within the specification, but there is no description which relates to the design of the device.

(G) The existence of working examples. These exists no working examples within the specification which clarifies how 'morphological filter' works.

(H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure. Since there are numerous applications in which the invention could be used the amount of experimentation would be enormous.

In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

These claims and/or specification must be amended or the claims must be withdrawn from consideration.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zahavi in view of Mehrotra. ('Applying neural computing to target marketing', referred to as **Zahavi**; 'Elements of artificial neural networks', referred to as **Mehrotra**)

Claim 1

Zahavi teaches acquiring information base is (**Zahavi**, abstract; 'Acquiring information base' of applicant is the result of 'database marketing' of Zahavi.), identifying the target and the objective (**Zahavi**, p6, C1:1-22; 'Target' of applicant is equivalent to 'target audiences' of Zahavi. 'Objective' of applicant is equivalent to

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'focused promotions, fewer costs, and higher response rates ... more effective use of promotional expenses and higher profits' of Zahavi.), determining values applicable to the target weighting values according to their importance in relation to the target (**Zahavi**, p7, C2:44 through p8, C1:19; 'Determining values applicable to the target weighting values' of applicant is equivalent to finding the weights of a neural network by training the neural network of Zahavi.), that each of the information items of the information base is successively examined. (**Zahavi**, p8, Fig 1; 'Each of the information items of the information base is successively examined' is illustrated by the right hand of Fig. 1 in which the entire 'universe of prospective customers' of illustrated.)

Zahavi does not teach evaluating preferences or degrees of importance of each of these information items according to at least one criterion dependent on the target, such that each information item is weighed by allocating to it at least one value.

Mehrotra teaches evaluating preferences or degrees of importance of each of these information items according to at least one criterion dependent on the target (**Mehrotra**, p2 Fig. 1.2; 'Evaluation preferences' of applicant is illustrated by  $w_1$  and  $w_2$  weights which are linked between nodes of the neural network.), such that each information item is weighed by allocating to it at least one value. (**Mehrotra**, p2 Fig. 1.2; The weights  $w_1$  and  $w_2$  are associated with a value of Mehrotra.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Zahavi by using weights as taught by Mehrotra to evaluating preferences or degrees of importance of each of these information items according to at

least one criterion dependent on the target, such that each information item is weighed by allocating to it at least one value.

For the purpose of using the weights for evaluation purposes and thus leading to accurate pertinent information.

Zahavi teaches that, on the basis of the values thus weighted, a morphological filter. (**Zahavi**, p7, C2:44 through p8, C1:19; 'A morphological filter' of applicant is the 'sum of squared deviations' which is used for weight determination of Zahavi.)

Zahavi does not teach dependent of the objective and on the target.

Mehrotra teaches dependent of the objective and on the target. (**Mehrotra**, p2 Fig. 1.2; The 'dependency' of applicant is disclosed by the connections between the input nodes and the output nodes of Mehrotra.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Zahavi by linking an object to a target as taught by Mehrotra to have dependent of the objective and on the target.

For the purpose of establishing a link between the target to the objective resulting in meaningful results.

Zahavi teaches is applied to the values associated with the information of the base (**Zahavi**, p8, Fig 1; The application of the values with the information of the base of applicant is the connection between the 'scoring' and 'universe of prospective customers' of Zahavi.), and thereafter an identification of the pertinent elements of the base is effected so as to match the filtered values up with the elements of the base and



that these pertinent elements are extracted. (**Zahavi**, p8, Fig 1; 'Filtered values up of the base and that these elements are extracted' of applicant is equivalent to the results of the 'scoring' module into the 'decision' module of Zahavi.)

#### Claim 2

Zahavi teaches wherein the filter is a distance or a metric. (**Zahavi**, p7, C2:44 through p8, C1:19; 'A distance or a metric' of applicant is equivalent to 'sum of squared deviations' of Zahavi.)

#### Claim 3

Zahavi does not teach wherein the evaluation of the preferences or degrees of importance is effected in a numerical manner.

Mehrotra teaches wherein the evaluation of the preferences or degrees of importance is effected in a numerical manner. (**Mehrotra**, p2 Fig. 1.2; 'Evaluation of the preferences' of applicant is illustrated by  $w_1$  and  $w_2$  weights which are linked between nodes of the neural network of Mehrotra. The weights  $w_1$  and  $w_2$  are of a numerical manner.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Zahavi by using different weights as taught by Mehrotra to have wherein the evaluation of the preferences or degrees of importance is effected in a numerical manner.

For the purpose of being able to adjust the neural network for increased accuracy.

Claim 4

Zahavi teaches wherein the values allocated to each information item are obtained by semi-automatic analysis. (**Zahavi**, p7, C2:44 through p8, C1:19; 'Semi-automatic analysis' of applicant is equivalent to 'training the neural network' of Zahavi.)

Zahavi does not teach by an operator or by an expert.

Mehrotra teaches an operator or by an expert. (**Mehrotra**, p180:6 through p181:24; 'By an operator or an expert' of applicant is disclosed by a 'user defined constant' of Mehrotra.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Zahavi by using expert input as taught by Mehrotra to have an operator or by an expert.

For the purpose of defining the neural network beyond accuracy limit of the training sets.

Claim 5

Zahavi teaches wherein the pertinent elements are ranked by order of pertinence. (**Zahavi**, p15, C2:9 through p16, C1:30; 'pertinent elements are ranked by order of pertinence' of applicant is equivalent to 'customers position in the decreasing ranking order' of Zahavi.)

Claim 6

Zahavi teaches wherein the evaluation of the preferences or degrees of importance is effected in a numerical manner. (**Zahavi**, p7, C2:44 through p8, C1:19; 'A numerical manner' of applicant is disclosed by 'sum of squared deviations' which has a numerical manner of Zahavi.)

#### Claim 7

Zahavi teaches wherein the values allocated to each information item are obtained by semi-automatic analysis. (**Zahavi**, p7, C2:44 through p8, C1:19; 'Semi-automatic analysis' of applicant is equivalent to 'training the neural network' of Zahavi.)

Zahavi does not teach by an operator or by an expert.

Mehrotra teaches an operator or by an expert. (**Mehrotra**, p180:6 through p181:24; 'By an operator or an expert' of applicant is disclosed by a 'user defined constant' of Mehrotra.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Zahavi by using an expert as taught by Mehrotra to have an operator or by an expert.

For the purpose of defining the neural network beyond accuracy limit of the training sets.

#### Claim 8

Zahavi teaches wherein the pertinent elements are ranked by order of pertinence. (**Zahavi**, p15, C2:9 through p16, C1:30; 'pertinent elements are ranked by

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order of pertinence' of applicant is equivalent to 'customers position in the decreasing ranking order' of Zahavi.)

#### Claim 9

Zahavi teaches wherein the pertinent elements are ranked by order of pertinence.

(**Zahavi**, p15, C2:9 through p16, C1:30; 'pertinent elements are ranked by order of pertinence' of applicant is equivalent to 'customers position in the decreasing ranking order' of Zahavi.)

#### Claim 10

Zahavi teaches wherein the pertinent elements are ranked by order of pertinence. (**Zahavi**, p15, C2:9 through p16, C1:30; 'pertinent elements are ranked by order of pertinence' of applicant is equivalent to 'customers position in the decreasing ranking order' of Zahavi.)

### ***Conclusion***

6. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure.

-U. S. Patent Publication 20040019574: Meng

-U. S. Patent Publication 20030220860: Heytens

-U. S. Patent Publication 20030088565: Walter

- U. S. Patent Publication 20030055707: Busche
- U. S. Patent Publication 20020194159: Kamath
- U. S. Patent Publication 20020123923: Manganaris
- U. S. Patent 6704717: Tate

7. Claims 1-10 are rejected.

***Correspondence Information***

8. Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner Peter Coughlan, whose telephone number is (571) 272-5990. The Examiner can be reached on Monday through Friday from 7:15 a.m. to 3:45 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor David Vincent can be reached at (571) 272-3080. Any response to this office action should be mailed to:

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/P. C./

Examiner, Art Unit 2129

Peter Coughlan

3/10/2008

/Joseph P. Hir/

Primary Examiner, Art Unit 2129